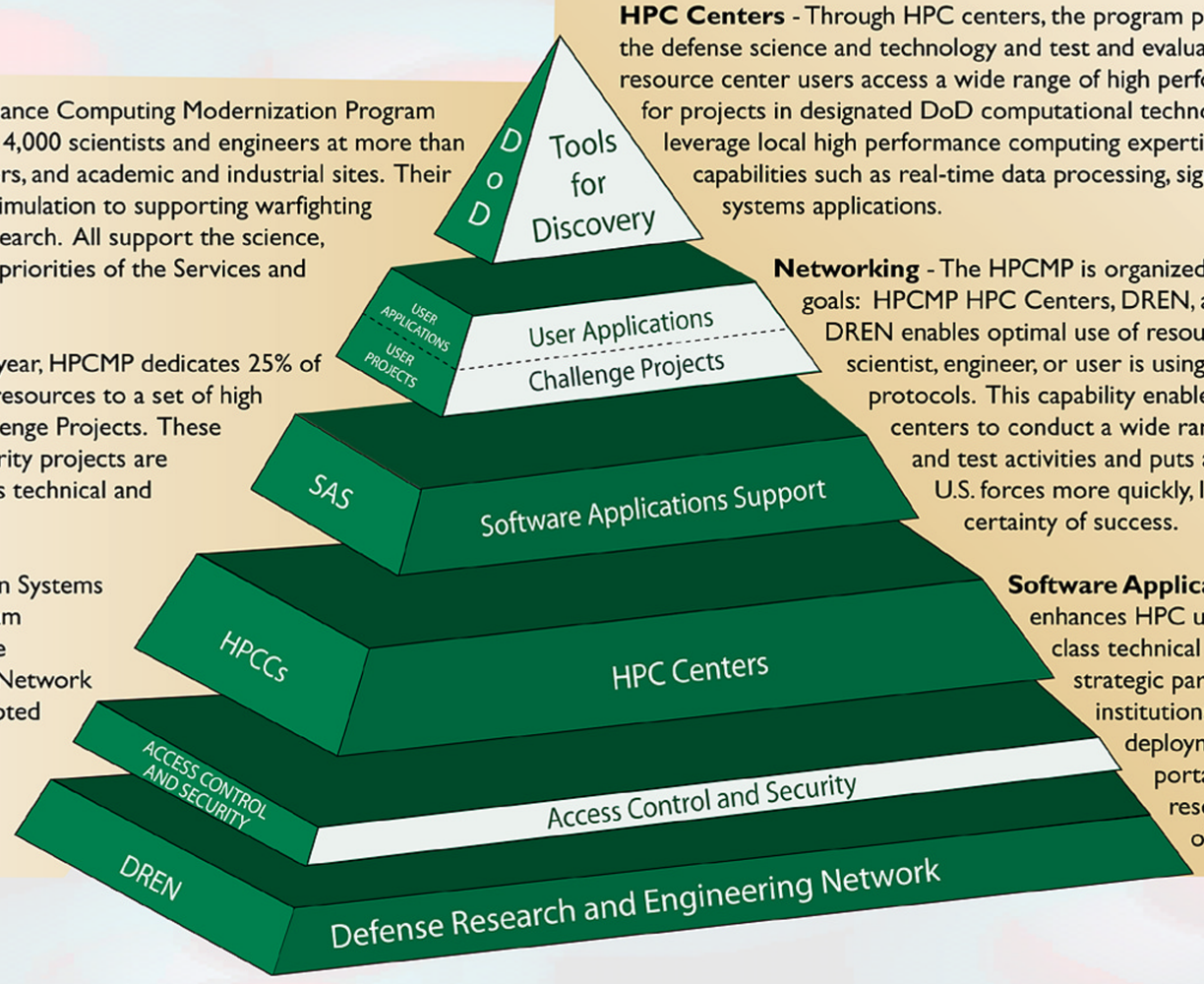
HPCMP INTEGRATED PROGRAM STRATEGY

User Projects - The High Performance Computing Modernization Program (HPCMP) user community exceeds 4,000 scientists and engineers at more than 100 defense laboratories, test centers, and academic and industrial sites. Their projects range from modeling and simulation to supporting warfighting system acquisition or long-term research. All support the science, technology, and test and evaluation priorities of the Services and Defense Agencies.

DoD Challenge Projects - Each year, HPCMP dedicates 25% of the program's total computational resources to a set of high performance computing DoD Challenge Projects. These computationally intensive, high-priority projects are selected annually through a rigorous technical and mission relevance evaluation.

Security - The Defense Information Systems Agency Information Security Program Management Office has certified the Defense Research and Engineering Network for sensitive information and encrypted classified traffic. Access to high performance computing systems is controlled by enhanced security technology and user procedures.

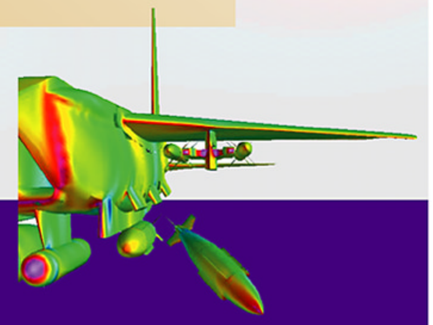


HPC Centers - Through HPC centers, the program provides state-of-the-art capabilities to the defense science and technology and test and evaluation communities. Major shared resource center users access a wide range of high performance computing capabilities for projects in designated DoD computational technology areas. Distributed centers leverage local high performance computing expertise and offer additional specialized capabilities such as real-time data processing, signal/image processing, and embedded systems applications.

Networking - The HPCMP is organized into three components to achieve its goals: HPCMP HPC Centers, DREN, and software application support. DREN enables optimal use of resources no matter where the HPC scientist, engineer, or user is using the latest technologies and protocols. This capability enables the Defense laboratories and test centers to conduct a wide range of focused research, development, and test activities and puts advanced technology in the hands of U.S. forces more quickly, less expensively, and with greater certainty of success.

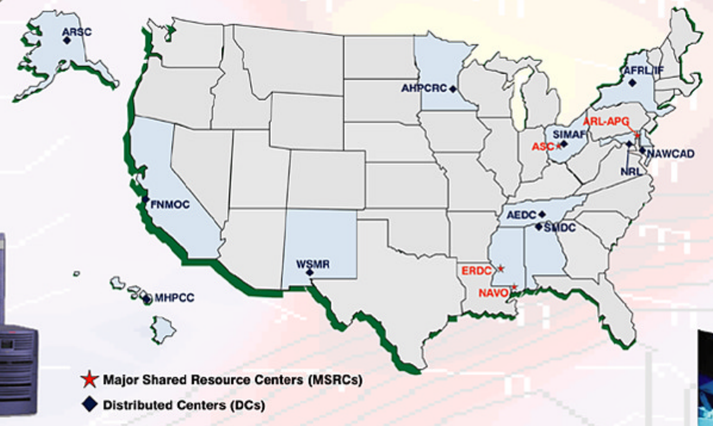
Software Applications Support - This component enhances HPC user productivity by providing world-class technical support and training through strategic partnerships with leading academic institutions. It augments development and deployment of efficient, scalable, and portable HPC software, and supports research, development and deployment of HPC software protection methods.

For more information refer to: http://www.hpcmo.hpc.mil



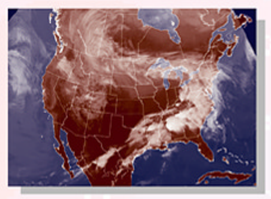
HPCMP COMPONENTS

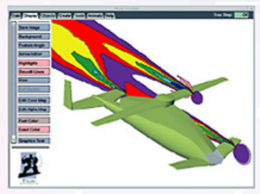
HPC Centers

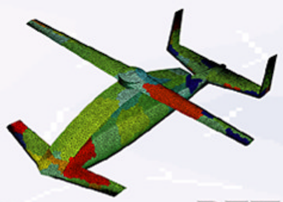


Software Applications Support

CHSSI







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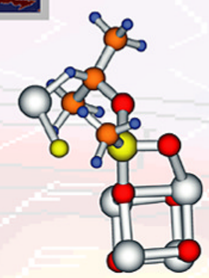
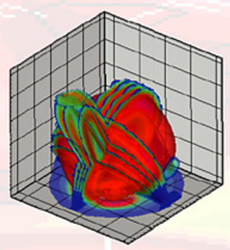
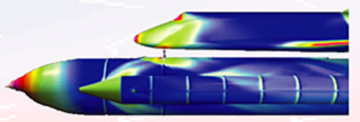


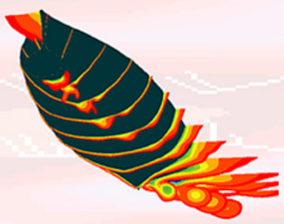


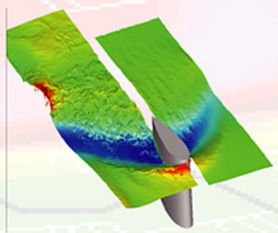


Networking

Resource Management

Requirements & Allocations





DoD Challenges